**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of the Claims:**

1-4. (Canceled)

5. (Currently Amended) A computer readable medium ~~as recited in claim 1,~~ including computer program code for an object representation of an object inside a virtual machine and suitable for use by said virtual machine, said computer readable medium comprising:

computer program code for a first reference to an internal class representation inside said virtual machine, wherein said internal class representation is associated with said object, and wherein said first reference can be used to invoke one more methods associated with said object;

computer program code for a second reference to instance fields of said object which is represented by said object representation inside said virtual machine, wherein said second reference can be used to access one or more instance fields of said object at runtime;

computer program code for a hash key that can be used to identify the object, wherein said hash key is the memory address of said first reference;

wherein said second reference is a reference to an array of references, wherein each reference in said array of references is a reference to an instance field associated with said object; and

wherein said internal class representation includes a header of a predetermined size, ~~and~~ wherein a method table associated with said ~~Java~~ object is allocated immediately after said header.

6. (Currently Amended) A computer readable medium as recited in claim 1, wherein said computer readable medium further comprises:

computer program code for a hash key that can be used to identify the ~~Java~~ object.

7. (Previously Presented) A computer readable medium as recited in claim 6, wherein said hash key is the memory address of said first reference.

8. (Currently Amended) A method for representing a ~~Java~~ object in a virtual machine, said method comprising:

allocating a first reference in a memory portion of said virtual machine, wherein said first reference is a reference to an internal class representation of said ~~Java~~ object, wherein said first reference can be used to invoke one more methods associated with said object at runtime;

allocating a second reference in a memory portion of said virtual machine, wherein said second reference is a reference to instance fields associated with said ~~Java~~ object, and wherein said second reference can be used to access one or more instance fields of said object at runtime; ~~and~~

wherein said first reference is a direct reference to said internal class representation of said object; and

wherein said second reference is a reference to an array of references, wherein each reference in said array of references is a reference to an instance field associated with said object.

9. (Canceled)

10. (Currently Amended) A method as recited in claim ~~9~~ 8, wherein said first reference is allocated as four bytes.

11. (Currently Amended) A method as recited in claim ~~9~~ 8, wherein said second reference is allocated as four bytes.

12. (Currently Amended) A method as recited in claim ~~9~~ 8,

wherein said internal class representation includes a header of a predetermined size, and

wherein a method table associated with said ~~Java~~ object is allocated immediately after said header.

13. (Currently Amended) A method as recited in claim ~~9~~ 8, wherein ~~Java~~ object representation further comprises:

storing a hash key that represents the object.

14. (Currently Amended) A method as recited in claim ~~9~~ 8, wherein said hash key is the memory address of said first reference.

15. (Currently Amended) A method of accessing information regarding an object which has been represented in an internal object representation inside a virtual machine, said method comprising:

identifying an internal object representation for said object inside said virtual machine;

determining whether a method associated with said object should be invoked or an instance field associated with said object should be accessed;

using a first reference in said internal object representation to locate an appropriate internal class representation inside said virtual machine when said determining determines that a method should be invoked, wherein said internal class representation is associated with said object and can be used to invoke one more methods associated with said object; ~~and~~

using a second reference in said internal object representation to locate one or more instance fields of said object when said determining determines that an instance field should be accessed, wherein said second reference can be used to directly access said one or more instance fields of said ~~Java~~ object;

wherein said second reference is a reference to an array of references, and

wherein each reference in said array of references is a reference to an instance field associated with said object.

16. (Currently Amended) A method as recited in claim 15, wherein said method further comprises:

wherein said internal class representation includes a header of a predetermined size;

wherein a method table associated with said object is allocated immediately after said header; and

skipping [[a]] said header of said internal class representation to access a method table associated with said ~~Java~~ object.

17. (Currently Amended) A method as recited in claim 15, wherein said information regarding said ~~Java~~ object includes a field descriptor table.

18-20. (Canceled).

21. (Currently Amended) A virtual machine, wherein said virtual machine is capable of:

identifying at runtime an internal object representation for an object inside said virtual machine, wherein said internal object representation includes a first and a second reference which respectively reference an internal class representation and one or more instance fields associated with said object;

determining at runtime whether a method associated with said object should be invoked or an instance field associated with said object should be accessed;

invoking a method at runtime, using a first reference in said internal object representation, to locate an appropriate internal class representation inside said virtual machine when said determining determines that a method should be invoked, wherein said internal class representation can be used to locate one more methods associated with said object; ~~and~~

accessing one or more instance fields at runtime, using a second reference in said internal object representation, to locate one or more instance fields of said object when said determining determines that an instance field should be accessed, wherein said second reference can be used to directly access said one or more instance fields of said object at runtime;

wherein said second reference is a reference to an array of references, and

wherein each reference in said array of references is a reference to an instance field associated with said object.

22-23. (Canceled)

24. (Currently Amended) A virtual machine as recited in claim 21,

wherein said internal class representation includes a header of a predetermined size, and

wherein a method table associated with said ~~Java~~ object is allocated immediately after said header.

25-27. (Canceled)